

Guidesonde: Targeting Meteorological Dropsonde with Optical and In-Situ Sensors, Phase I

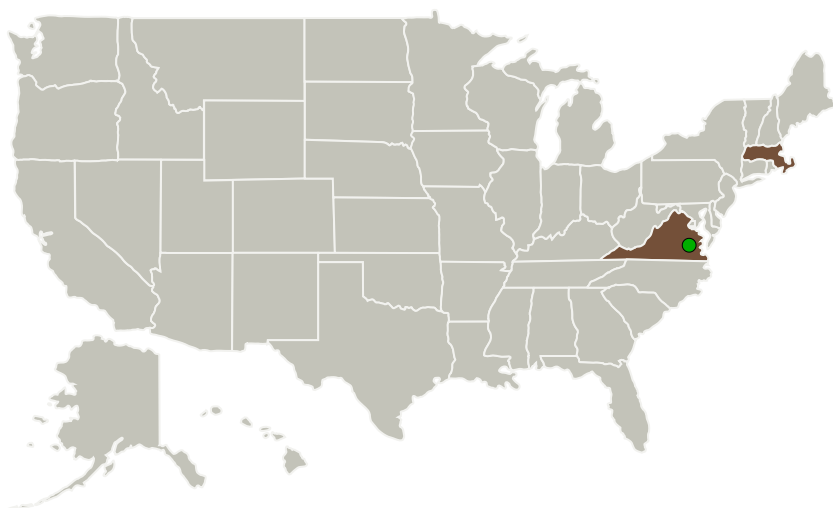
Completed Technology Project (2014 - 2014)



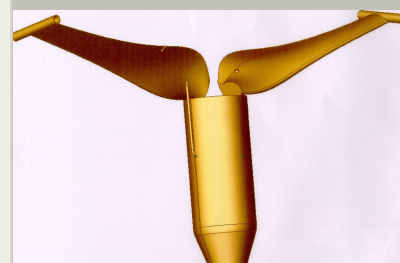
Project Introduction

There exists a programmatic need across several government agencies for both UAV and manned aircraft to be able to deploy in-situ observation sensors within areas of scientific interest. These missions include sampling ice at high resolution over the arctic, investigating plumes near active volcanos, measuring ionizing radiation within denied HAZMAT or nuclear emergency areas, and sampling the thermal and momentum fluxes within eyewall of an active hurricane. This latter capability is crucial for the success of future UAS missions such as NASA's Hurricane Severe Storm Sentinel (HS-3). Guidesonde will enable the Global Hawk to loiter at a safe stand off distance, well away from highly turbulent storm areas.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Yankee Environmental Systems, Inc	Lead Organization	Industry	Turners Falls, Massachusetts
● Langley Research Center (LaRC)	Supporting Organization	NASA Center	Hampton, Virginia



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Primary U.S. Work Locations

Massachusetts

Virginia

Project Transitions

June 2014: Project Start

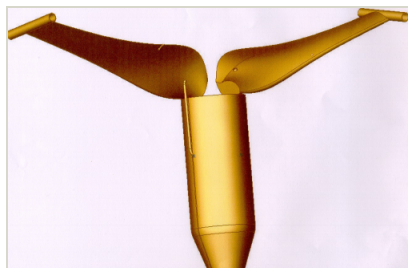
December 2014: Closed out

Closeout Summary: Guidesonde: Targeting meteorological dropsonde with optical and in-situ sensors, Phase I Project Image

Closeout Documentation:

- Final Summary Chart Image(<https://techport.nasa.gov/file/137504>)

Images



Briefing Chart Image

Guidesonde: Targeting meteorological dropsonde with optical and in-situ sensors, Phase I (<https://techport.nasa.gov/image/126492>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Yankee Environmental Systems, Inc

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

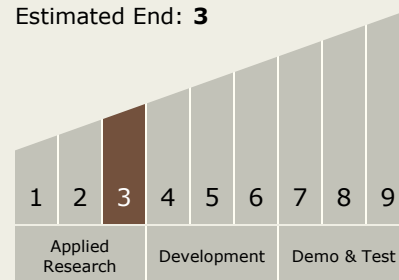
Carlos Torrez

Principal Investigator:

Mark Beaubien

Technology Maturity (TRL)

Current: **3**
Estimated End: **3**



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Technology Areas

Primary:

- TX04 Robotic Systems
 - └ TX04.2 Mobility
 - └ TX04.2.4 Surface Mobility

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System